

## The Impact of Quality Information on the Environmental Accounting Disclosure: A Case study for the Arabian Gulf Oil Company in Libya.

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### Abstract:

*The aim of this study, which is conducted on the quality of information and its impact on the environmental accounting disclosure, is to explore the prospective key strategies and policies by which quality of information can play an important role for the success of environmental accounting disclosure. This study derives its significance from the importance of the topic and its concept; it concentrates in particular on developing a potential framework for the lead to effective and optimal ideas in order to enhance the performance of the Arabian Gulf Oil Company (AGOC) in Libya with regard to quality of information and its impact on the environmental accounting disclosure.*

*The present study used as questionnaire as a tool for collecting the relevant data and also to achieve the objectives of the study. The study sample consisted of (31) respondents selected randomly from the financial & administrative administration as well as from the environmental safety & security administration in the (AGOC), as both administrations have a direct relation in dealing with the information and its quality as well as dealing with the environmental accounting disclosure. The statistical package for social sciences (SPSS) program was used to analyze and examine the hypotheses, and some statistical methods such as the weighted mean, standard deviation, regression analysis and other appropriate analysis were used in order to discover the effect of quality of information on environmental accounting disclosure in the company. Executing the analysis on the study hypotheses, the study reached a number of results, the most important of which are: there is a significant impact (statistically significant) for the quality of information on the level of details related to environmental accounting disclosure, as well as a statistically significant effect for the quality of information on the nature and types of information related to environmental accounting disclosure.*

**Key words:** *Quality, Information quality, Environmental accounting disclosure.*

### 1. Introduction:

Environmental matters have become a main social attention and a subject of increasing public concern (Gray & Bebbington, 2001; Lamberton, 2005; Milne & Gray, 2007; Beck et al, 2010). This concern has given increase to a greater motivation for the disclosure of the environmental and social influences of modern corporations (Lamberton, 2005; Guthrie & Farneti, 2008). This increased concern of the environment is reflected in the increase of social accountability which includes responsibility to undertaken particular action and responsibility to provide an account to this action (Gray, et al. 1996), sustainability and environmental reporting and resulted in additional organizational disclosures to provide a sufficient description of social and environmental impacts of an organization's operations (Gray et al, 1996; Guthrie &

**Farneti, 2008**). Furthermore, there is a view that organizations continually attempt to develop their social and environmental reporting which in turn influences their environmental performance. This action is seen as a response to community, government and other stakeholders concern about organizational environmental performance (**Parker, 2000; Beck et al, 2010**).

Environmental accounting through environmental accounting disclosure plays a crucial role in informing the community about the use of its resources and the burdens (and benefits) firms have been obliged to bear in major development decisions ( **Gray, 1992; Maunders & Burritt 1991**). Furthermore, Rogers and Kristof (**2003**) mention that numerous companies use environmental accounting “to illuminate the magnitude of previously hidden environmental costs, and to allocate these costs to product lines in order to improve decision making” (p. 22). According to Morgan (**1988**), environmental and social accounting may involve reading, assessing, and understanding situations in a manner which enables the creation of "intelligent, actionable insights, rather than to produce rigid technical statements as ends in themselves" (p. 484). Also, Yakhou and Dorweiler (**2004**) stress the importance of environmental accounting in the accounting field, and they state that environmental accounting, by providing environmental reports, can be an effective factor for internal and external users. The environmental information is used by internal users for decision making, controlling overhead and capital budgeting; also environmental accounting could be used for external use to disclose the information to the public and financial communities

Information quality has been the subject of research for many years. When selecting information, individuals must concern themselves with the quality of the information available. Individuals are not interested in just any information; they request the best information obtainable for their determination (Mai, 2013). Information quality is defined as” a multi-dimensional construct that characterizes the extent to which information is fit for use for a particular purpose (**Slone, 2006**).

### **2.1 Research Problem:**

Providing information with good quality in relation to the natural resources in the country, the government can make a suitable plan for the resources in the future thus providing a form of sustainable management. This will enable governments to allocate these resources and utilize them in different ways to ensure that the most valuable investment will ensue. Furthermore, through the information that is produced by environmental accounting, governments can decipher the levels of environmental pollution, and then formulate the decisions that can reduce and control this pollution – which is not just a governmental concern but also a non-governmental concern (**Rahahleh, 2011**).

In Libyan context, there is a shortage of environmental accounting research. Small number of researchers study environmental accounting disclosures in Libya, this makes this area of research attractive to explore. There is a study that has been done by Ahmed (**2004**) who sought to examine the corporate environmental disclosure in Libya in the period between 1998 - 2001. According to his results, there was not any evidence to support the existence of

corporate environmental disclosure in both terms of quantity and quality. Following this study and in the Libyan context also, Ahmed and Mousa (2010) examined the extent of corporate environmental disclosure; they found that the corporate environmental disclosure practice in Libya has small improved.

Exploratory study has been done by the researchers to investigate the sample of this research. They notify some issues in relation to the environmental accounting disclosure which could be highlighted as fowling: firstly, the information quality does not have a great significance in (AGOC). Secondly, the available information in the company does not have a good quality and does not meets the needs of the stakeholders. Thirdly, it is not easy for the stakeholders to access to the information in the company. Fourthly, the available information does not enable the company to respond more quickly to change.

Based on the above, the current research agenda is attempting to answer the main following question:

**Does the quality of information have an impact on the environmental accounting disclosure in (AGOC)?**

### **3.1 Aim and objectives of the research:**

This paper aims at investigating the importance of quality of information and its impact on the environmental accounting disclosure in the (AGOC) in Libya. It explores its purposes, significance, activities, and functions. The essential objectives of this study are:

1. To understand the main principles, facts, and concepts related to quality of information and the environmental accounting disclosure.
2. To understand the key strategies and policies by which quality of information can play for the success of the environmental accounting disclosure.
3. To provide a comprehensive investigation of the sources on the topic of quality of information and the environmental accounting disclosure.

### **4.1 Research Hypothesis:**

The main hypothesis of this study was:

**There is a significant impact (statistically significant) for the quality of information on the environmental accounting disclosure at level ( $\alpha \leq 0.05$ ).**

This hypothesis is divided into the following sub-hypotheses

1. There is a significant impact (statistically significant) for the quality of information on the level of details related to the environmental accounting disclosure at level ( $\alpha \leq 0.05$ ).
2. There is a significant impact (statistically significant) for the quality of information on the types of information related to the environmental accounting disclosure at level ( $\alpha \leq 0.05$ ).
3. There is a significant impact (statistically significant) for the quality of information on the nature of information related to the environmental accounting disclosure at level ( $\alpha \leq 0.05$ ).

### 5.1 Significance of Research:

This study derives its importance from the importance of quality of information and the subject of study "environmental accounting disclosure". The importance of the research appears from the following indicators:

1. This research is one of the early researches in Libya that investigates the topic quality of information and its impact on environmental accounting disclosure.
2. The outcome of this research may lead to an effective and optimal ideas to enhance the performance of the (AGOC) in Libya.

### 6.1 Research Population and Sample:

The population in the current research consists of all working staff in the financial & administrative administration as well as in the environmental safety & security administration in the (AGOC) totaled (50 employees), as both administrations have direct relation in dealing with the information in its quality as well as in the environmental accounting disclosure. 41 copies of the questionnaire were distributed to targeted respondents. Out of this total, 31 copies were returned fully answered and were chosen for the analysis (75.6 per cent of the total number distributed), this return rate being reasonable and useful for the purpose of analysis. 3 copies were not completed properly and were, thus, excluded from the analysis, while 7 copies were not returned at all. As indicated by (Roscoe, 1975) cited in (Sekaran and Bougie, 2010, p. 296) for the size of research sample to be appropriate for conducting any research it must be more than 30 and less than 500 unit.

## 2. Theoretical Framework and Previous Studies:

### 2.1 Historical Background:

It is over four decades later and environmental disclosure has been an area of interest and attention for several academic researchers; some of the earliest studies were those done by Ernst and Ernst, (1972-1978) and Grojer and Stark (1977). To date, a significant number of studies have been done, covering different countries; industrialised countries (see, for example, Beattie et al. 2004; Beck et al. 2010; Bewley & Li, 2000; Campbell, 2004; Deegan & Gordon, 1996; Gray, 1993; Guthrie & Abeysekera, 2006; Guthrie & Mathews, 1985; Hackston & Milne, 1996; Harte & Owen, 1991; Rockness, 1985; Ullmann, 1985; Zeghal & Ahmed, 1990), and unindustrialised countries (see, for example, Ahmed & Mousa, 2010; Andrew et al. 1989; Baxi & Ray, 2009; Belal, 2000; Disu & Gray, 1998; Hegde et al. 1997; Teoh & Thong, 1984). The studies which have been done in the developed countries, are more advanced than those which were done in the developing countries. In the developing countries the focus of the studies was upon whether the companies disclosed the environmental information or not and the quantity of this information (Ahmed & Mousa, 2010; Baxi & Ray, 2009; Belal, 2000). In contrast, in the developed countries, the researchers went beyond that limited focus and started to provide an advanced investigation of environmental disclosure. Several researchers investigated the determinants and the quality of the environmental disclosure and others investigated the relationships between the environmental disclosure and the economic and environmental performance (see, for example, Beattie et al. 2004; Beck et al. 2010;

**Bewley & Li, 2000; Campbell, 2004; Clarkson et al. 2004; Cormier et al. 2005; Guthrie & Abeysekera, 2006; Hackston & Milne, 1996).**

Environmental disclosure is a crucial stage in applying environmental accounting. Cho, Chen and Roberts (2008) stated that there some principles which are significant for environmental disclosure. These principles are that organizations have to disclose financial information such as compliance costs, contingent liabilities and lawsuits, and nonfinancial information, which relate to the environmental matters such as Sulphur dioxide emissions or toxic chemical spill. In addition, Cowan & Gadenne (2005) insisted that every organization has to offer information to numerous users whether they are internal users such as employees or external users such as government. This information could be classified into two main types - mandatory and voluntary. Mandatory information is that which appears in the director's report in accordance with the requirements of law. However, voluntary environmental disclosures are those appearing in sections other than the directors' report. The voluntary parts of the report allow a greater amount of discretion to the organization with regard the content of material included, as they are not mandatory. Both types are explained as follows:

#### **Mandatory disclosure**

The mandatory information provides users of the annual report with a factual account of the organisation's compliance with regulations during the period of reporting (Cowan and Gadenne, 2005). In addition, the mandatory disclosures will place reporting companies in a position of increased scrutiny. They observed that the material included in the Director's Report should command a different disclosure behaviour than that adopted in the voluntary section (Cowan and Gadenne (2005).

#### **Voluntary disclosure**

Several user groups are considering the voluntary disclosure in the decision-making process. However, organisations provide voluntary disclosure not only as a means to satisfy the user's right to know, but also as a way in which the organisation would be deemed legitimate by society and subsequently reap the rewards of such legitimacy (Cowan & Gadenne, 2005). This creates an effort on the management accountant's behalf to represent the most appropriate information. Consequently, Lee (2005, p 8) mentioned that "managerial accounting can help organisational managers determine how to approach environmental reporting". Management accounting can be useful in the control of environmental costs by providing a wealth of information, which is relevant to the environmental issues and useful for decision-making. Furthermore, Lee (2005) concluded that managerial accounting is the best way to reach the peak firm performance. (Jones et al. 2005, p. 213) supported that "an environmental management system is a management system that aims to encourage an organisation to control its environmental impacts and reduce such impacts continuously". This implies that voluntary disclosure assumes a twofold objective.

Despite the fact that the past organizations were focused upon the competitiveness of the business sector and financial benefits without giving great consideration to the environmental problems caused by their activities (McCloskey and Smith, 1997), in recent times businesses

and organizations have acknowledged an imperative to improve their operations and products in relation to environmental friendly practices to gain the competitive advantages (Prothero and McDonagh, 1992; Spence, 2007). According to (McCloskey and Smith, 1997), this appears to be due to components of society, including investors, creditors, government and consumers who are becoming more interested in environmental issues. This has placed pressure on the organizations to alleviate the adverse consequences of their activities upon the environment (McCloskey and Smith, 1997). In order to help managers in organisations make better business decisions while acknowledging the influence of their organisation on society and the environment accounting information needs to provide the relevant information to the environment. Not only does accounting play a key role in the internal operations of an organization but it also plays enormous role externally to demonstrate social and environmental responsibility (Lodhia, 2003). Accounting is relevant to external stakeholders to provide sufficient information about issues including social responsibility, sustainability and accountability. The focus on environmental issues within an organization is a responsibility of all departments within the organisation. The departments are responsible for providing financial performance information and departments concerned with the environmental impact of the organization should provide valuable information for all decision makers (Cho, Chen & Roberts, 2007).

#### **Levels of information disclosure:**

There are three levels of explanation could be used to reveal the information, these levels are:

**Level or type 1:** Disclosure addresses issue in pure narrative. This type of disclosure provides a low level of details and minimum coverage, so any report with a little amount of type 1, means the disclosure addresses a small number of issues (Beck et al. 2010).

**Level or type 2:** Disclosure addresses issue in numerical way. This type of disclosure is usually related to quantitative themes such as emissions, consumption or resources use, waste or expenditure (Beck et al. 2010). Type 2 disclosures, giving numerical elements, could provide a higher quality of information than disclosing information in pure narrative (Beck et al. 2010; Toms, 2002).

**Level or type 3:** Disclosure addresses issue in numerical way including qualitative explanation (narrative and quantitative). This level added extra information and details to level 2 by providing more explanation and description to the numerical elements, which could be seen as a higher level of information than type 2 (Beck et al. 2010)

#### **Quality of information:**

Individuals want information of good quality, and to get it they often turn to information professionals and professionally maintained information systems and resources. To accomplish this public expectation, information professionals and information study must apply a solid, theoretically sound, and valid notion of information that is grounded in a philosophy of information (Mai, 2013). Information can be viewed from three perspectives: “information as reality (e.g. as patterns of physical signals, which are neither true nor false). . .; information about reality (semantic information, which is alethically qualifiable and an

ingredient in the constitution of knowledge); and information for reality (instruction, like genetic information, algorithms and recipes)” (Floridi, 2008,p. 118). Accurate information reflects the underlying reality. That quality information should be accurate seems obvious, in practice, information used for different purposes requires various levels of accuracy, and it is even possible for information to be too accurate in the sense of being too precise (Miller, 1996). The availability of reliable, accurate, and up-to-date information is crucial for any decision making. Information has validity when it can be verified as being true and satisfying appropriate standards related to other dimensions such as accuracy, timeliness, completeness, and security (Miller, 1996). When information is used to communicate and exchange ideas, it is important that the information can be trusted, meaning typically that it is of good quality. Unlike those who are in the business of deliberately distributing disinformation, information professionals are interested in giving access to and using information of high quality. People in the information production-organization-retrieval-use business have long advocated on behalf of information quality and are rightly concerned about the design and maintenance of systems and services that provide access to information of good quality (Mai, 2013).

#### Quality of the environmental information

There are a number of significant issues in relation to environmental accounting. One of these issues is capturing all the information, both financial and non-financial, which relates to the environmental problems (Steadman et al. 1995). Lee (2007) also states that environmental damage is presented as one of the problematic concerns for the company itself, specifically for oil and gas companies. Lee (2007) concluded that the most problematic risks in the extractive industry are those associated with the environmental impacts of the company’s operations. Capturing all the information that is associated with the environmental impacts and conveying it to stakeholders present a very challenging task for all companies around the world.

The quality of the environmental information disclosure can be seen as a key value for companies. Many benefits could be provided if the company releases high quality environmental information (Rattanaphatham & Kunsrison, 2011). For example, competitive advantage has been identified as one of the benefits that can be associated with the disclosure of corporate environmental information (Kent & Chan, 2003; Meek, Roberts & Gray, 1995). This is consistent with Rattanaphatham and Kunsrison (2011) who found that positive opinion of customers, community support and employees’ satisfaction could be gained by disclosure of information about environmental events.

Rattanaphatham and Kunsrison (2011) state that the quality of disclosure of environmental information might affect the interpretation of stakeholders and enhance investor confidence. Beretta and Bozzolan (2004) argued that the quantity of the disclosure is not sufficient to give insight about the effectiveness and the completeness of the disclosure and the quality of the disclosure is reliant on two factors; the amount of disclosures that a company provides and the details and the richness of the information.

## 2.2 Previous studies:

In the developing countries, in Libya for instance, there is a study has been done by Ahmed (2004) who sought to examine the corporate environmental disclosure in Libya in the period between (1998 - 2001). According to his results, there was not any evidence to support the existence of the corporate environmental disclosure in both terms quantity and quality. Following this study and in the Libyan context also, Ahmed and Mousa (2010) examine the extant of corporate environmental disclosure, the used content analysis to investigate the corporate environmental disclosure practices by the 18 largest industrial companies quoted on Industrial and Mineralisation Secretary (IMS) in Libya. They fund that the corporate environmental disclosure practice in Libya has been improved and they used the political economic theory to explain their results

Far from Libyan context a study has been done by Tsang (1998) who examined the social and environmental reporting in Singapore by studying the annual reports of 33 companies listed on the Stock Exchange of Singapore under banking, food and beverages and hotel industries during the ten-year period (1986-1995). Tsang (1998) concluded that only 17 companies provided social and environmental disclosure and there was a steady increase in disclosure has been highlighted in late 1980s and the stable level of disclosure since 1993. Belal (2000) investigated the environmental disclosure practice in Bangladesh and he studied 30 recent corporate annual reports of Bangladeshi companies relating to the year 1996. Belal (2000) concluded that the environmental disclosure of Bangladeshi companies was poor and satisfactory in both terms quantity and quality. Also, Dasguta et al (2006) studied the reaction of investors toward the list of enterprises which fail to comply with national environmental laws and regulations which Ministry of Environment of the Republic of Korea has published. Their results showed that investors on the Korean Stock Exchange have significant reaction toward the disclosure of such news and the decline in market value was much higher than the estimated changes in market value for comparable events in Canada and the United States.

Regarding the previous studies related to quality of information. Mai (2013) discussed and analyzed the concept of information quality in terms of a realistic philosophy of language. He argued that the concept of information quality is of great significance, and he found that the concept of information quality is often not situated within a philosophy of information. In addition, Slone (2006) studied and set forth contextual and conceptual models relating information quality to strategy and then provided an empirical analysis of the relationship between information quality and organizational results, with information intensity hypothesized as a moderator of that relationship. He found that the relationship between the quality of information and organizational results is systematically measurable, in that measurements of information quality can be used to forecast organizational results, and that this relationship is, for the most part, positive.

## 3. Methods and Procedures:

### 3.1 Research Methodology:

The descriptive approach is used to conduct this study, and the case study approach is adopted. The case study approach helps in the overall analysis and depth of the problem researched in the Arabian Gulf Oil Company, and it gets vast amount of data for all events associated with the situation, and also allows the researcher to summarize, analyze and select directly what is suitable for the study. The case study method is characterized by many advantages as it requires the use of more than one scientific method of research to gain access to the most accurate results.

After collecting the information and data of the study, they were reviewed and prepared to be inserted into computer. They were analyzed by using the Statistical Package for Social Sciences (SPSS) in



order to obtain specific figures, and to transfer the answers from verbal to digital. In this part "Strongly Disagree" answer was given 1 grade, "Disagree" was given 2 grades, whereas the answer "Neutral" was given 3 grades. On the other hand, 4 grades were given to answer "Agree", while the answer "Strongly Agree" was given 5 grades. Consequently, as long as the grade to answer increased, the grade of acceptance increased as well, and vice versa. These grades represent the answers of the participants in the study (study sample) to the questions contained in the questionnaire, and the field study outcomes, which is considered as the input of the statistical analysis that aims to draw conclusions through the analysis of these inputs. Therefore, the arithmetic weighted means and the standard deviations as well as the percentage of answers of each statement were statistically calculated.

To determine the degree of practice of quality Information on environmental accounting disclosure, we relied on the mean averages of the responses of the sample. Five levels of the practice score shown in Table (1), they were determined according to the following equation:

$$\text{Category Length} = \frac{\text{Maximum score} - \text{Minimum score}}{\text{Number of levels}}$$

$$\frac{5 - 1}{5} = 0.80$$

Table (1): Levels of practice scale

Practice Scale	Very low	Low	Medium	High	Very high
Levels	Less than 1.80	1.80 less than 2.60	2.60 less than 3.40	3.40 less than 4.20	4.20 less than 5

### 3.2 The Reliability of the Questionnaire:

The reliability of questionnaire means that, the same results are given, if the questionnaire is re-distributed more than once under the same circumstances and conditions. The questionnaire reliability explains the stability in the results of the questionnaire that is not to be significantly changed if it is redistributed several times during a certain period of time.

#### Cronbach's Alpha Coefficient.

The researchers applied the statistical measurement in order to determine the reliability of the measurement tool (questionnaire). This was carried out by using a Cronbach's Alpha Coefficient. The Cronbach's Alpha Coefficient was calculated by using the following equation (Anne, 1982):

$$R_{tt} = \left( \frac{n}{n-1} \right) \times \left( \frac{SDt^2 - \sum (SD)^2}{SDt^2} \right)$$

Where:

- :  $R_{tt}$  : Represents the correlation coefficient of alpha.
- :  $n$  : Represents the number of statements to be measured.
- :  $SDt^2$  : Represents the variation of the total test.
- :  $\sum (SD)^2$  : Represents the total variations of the statement's measurement.

The reliability of questionnaire is considered to be weak reliability, when the value of Cronbach's Alpha Coefficient is less than 60%. The reliability of questionnaire is considered to be acceptable when this value is within (60% or less than 70%), and it is regarded to be good reliability if the value of Cronbach's alpha Coefficient (from 70% or less than 80%). However, if this value is greater than or equal to 80%, this suggests that the reliability of questionnaire is excellent. Finally, the closer of the scale to 100%, the results of Cronbach's Alpha Coefficient can achieve and obtain best outcomes.

Regarding the reliability of this study (questionnaire), the Cronbach's Alpha Coefficient for its variables, that totalled 22 statements, the results showed that the value of Cronbach's Alpha Coefficient was very high (75.6%). Therefore, this represents good indicator to be trusted for the purpose of the study, and considered to be good measurement tool to be used. Thus, the researchers can be assured about the validity and reliability of the study, and be confident that the preparation of the questionnaire was correct and suitable for the analysis of the results, and also to answer the questions of the study as well as testing of hypotheses.

### 3.3 The Analysis of Questionnaires:

#### 3.3.1 Demographic variables of the study sample

Table (2) presents the results of the descriptive analysis of the personal data of the respondents of the study sample with regard to (work experience, scientific qualification, and career status). It is clear that more than half of the respondents 51.61 % ranged in age from 30 to less than 40 years. As for scientific qualification, it is clear that nearly half of the respondents in the study sample 48.4 % had master degree. For the employment position, it was found that about 35.5 % were Accountants. As for the variable of years of experience, the results showed that the vast majority of the respondents 83.9 % ranged in years of experience from 5 to 10 years. The following table shows the rest of the results of descriptive analysis of the personal data of the study sample:

Table (2): Description of Demographic variables

N	Variable	Category	Frequency	Percent
1	Age	Less than 30 years	1	3.23 %
		30 to less than 40 years	16	51.61 %
		40 to less than 60 years	10	32.25 %
		More than 60 years	4	12.90 %
Total			31	100 %
2	Qualification	PhD	2	6.5 %
		Master's Degree	13	48.4 %
		Postgraduate Diploma	3	9.7 %
		First Degree	10	32.3 %
		Higher National Diploma	2	6.5 %
		Intermediate Diploma	1	3.2 %
Total			31	100 %
3	Employment position	Head of Dept.	4	12.9 %
		Administrator	8	25.8 %
		Technician	6	19.4 %
		Supervisor	2	6.5 %
		Accountant	11	35.5 %
Total			31	100 %
	Years of experience	Less than one year	0	0
		From one to 3 years	1	3.2 %
		From 3 to 5 years	2	6.5 %

4	5 to 10 years	26	83.9 %
	More than 10 years	2	6.5 %
Total		31	100 %

### 3.3.2 Quality of Information:

The researchers studied the elements of the independent variable (quality of information). Table (3) shows the statistical distribution of the responses of the participants as follows:

**Table (3) Means and standard deviations for quality of information**

It is evident from the data in table (3) that the weighted mean of the entire variable (quality of

N	Statement	Mean	Std. Deviation	Rank	Level of importance
1	The issue of information quality has become increasingly visible and important for the (AGOC).	2.32	1.222	10	Low
2	The information in my company has a reputation for quality.	2.87	1.204	6	Medium
3	The information in my company is sufficiently up-to-date for the work of the (AGOC).	2.52	1.208	9	Low
4	The available information in my company is reliable, accurate and complete.	2.91	.998	5	Medium
5	The information in my company meets the recognized criteria of quality such as timeliness and understandability.	3.13	1.335	2	Medium
6	The information provided has the validity as being true and satisfying appropriate standards related to coherence and security.	2.94	1.181	4	Medium
7	The information in my company is easily obtainable.	2.72	1.290	8	Medium
8	The available information enables the company to respond more quickly to change.	2.74	1.210	7	Medium
9	The available information in my company is applicable to the work of the (AGOC).	3.58	.992	1	High
10	The available information in my company is easily retrievable.	3.00	.816	3	Medium
		<b>2.88</b>	<b>.7667</b>		

information) is almost 2.88, with a standard deviation of about 0.7667. In addition, it is clear from the table (3) that the most important statement is “the available information in my company is applicable to our work.” This statement ranked first with an average mean of almost 3.58, and a standard deviation of nearly .992. It is also clear from the above table that the least important statement is “the issue of information quality has become increasingly visible and important in my company.” This statement ranked tenth with an average mean of nearly 2.32, and a standard deviation of almost 1.222.

### 3.3.3 Level of Details

The researchers studied the elements of the dependent variable (level of details). Table (4) shows the statistical distribution of the responses of the participants as follows:

Table (4) Means and standard deviations for level of details

	Statement	Mean	Std. Deviation	Rank	Level of importance
1	The company considers the diversity of both pure narrative approach and numerical approach is important in the environmental accounting disclosures.	2.52	1.235	4	Low
2	The reports focus on pure the narrative approach in the environmental accounting disclosures.	3.23	1.117	2	Medium
3	The reports focus on the numerical approach in the environmental accounting disclosures.	3.00	1.095	3	Medium
4	The reports focus on the numerical approach with qualitative description approach in the environmental accounting disclosures.	4.06	5.459	1	High
		<b>3.20</b>	<b>1.54</b>		

It is obvious from the data in table (4) that the weighted mean of the entire variable (level of details) is almost 3.20, with a standard deviation of about 1.54. In addition, it is clear from the table (4) that the most important statement is “The reports focus on the numerical approach with qualitative description approach in the environmental accounting disclosures”. This statement ranked first with an average mean of 4.06, and a standard deviation of 5.459. It is also clear from the above table that the least important statement is “the company considers the diversity of both pure narrative approach and numerical approach is important in the environmental accounting disclosures”. This statement ranked forth an average mean of nearly 2.52, and a standard deviation of almost 1.235.

### 3.3.4 Types of Information:

The researchers studied the elements of the dependent variable (types of information). Table (5) shows the statistical distribution of the responses of the participants as follows:

Table (5) Means and standard deviations for types of information

	Statement	Mean	Std. Deviation	Rank	Level of importance
1	The company gives equal importance to the positive and negative environmental accounting information.	2.90	1.248	4	Medium
2	The reports focus on positive environmental information in the environmental accounting disclosures.	3.55	.925	1	High
3	The reports focus on negative environmental information in the environmental accounting disclosures.	2.97	1.354	3	Medium
4	The reports focus on positive and negative environmental information in the environmental accounting disclosures.	3.03	.983	2	Medium
		<b>3.11</b>	<b>.888</b>		

It is apparent from the data in table (5) that the weighted mean of the entire variable (types of information) is almost 3.11, and with a standard deviation of about .888. In addition, it is clear from the table (5) that the most important statement is “the reports focus on positive and negative environmental information in the environmental accounting disclosures.” This statement ranked first with an average mean of 3.03, and a standard deviation of .983. It is also clear from the above Table that the least important statement is “the company gives equal

importance to the positive and negative environmental accounting information”. This statement ranked forth an average mean of nearly 2.90, and a standard deviation of almost 1.248.

### 3.3.5 Nature of Information:

The researchers studied the elements of the dependent variable (nature of information). Table (6) shows the statistical distribution of the responses of the participants as follows:

Table (6) Means and standard deviations nature of information

	Statement	Mean	Std. Deviation	Rank	Level of importance
1	The financial statements are available and accessible to all stakeholders of the Company	2.90	1.136	4	Medium
2	The reports focus on financial environmental information in the environmental accounting disclosures.	3.03	1.197	2	Medium
3	The reports focus on nonfinancial environmental information in the environmental accounting disclosures.	3.32	1.045	1	Medium
4	The reports focus on financial and nonfinancial environmental information in the environmental accounting disclosures.	2.92	.870	3	Medium
		<b>3.04</b>	<b>.856</b>		

It is evident from the data in table (6) that the weighted mean of the entire variable (nature of information) is almost 3.04, and with a standard deviation of about .856. In addition, it is clear from the table (6) that the most important statement is “The reports focus on nonfinancial environmental information in the environmental accounting disclosures”. This statement ranked first with an average mean of 3.32, and a standard deviation of 1.045. It is also clear from the above table that the least important statement is “The financial statements are available and accessible to all stakeholders of the Company”. This statement ranked forth an average mean of nearly 2.90, and a standard deviation of almost 1.136.

### 3.4 Testing the Hypothesis:

#### 3.4.1 Sub-Hypothesis 1:

***“There is a significant impact (statistically significant) for the quality of information on the level of details related to environmental accounting disclosure”***

For testing this hypothesis, the researchers used the simple linear regression in order to know the impact of quality of information (independent variable) on the level of details related to the environmental accounting disclosure (dependent variable).

As it can be seen from the data presented in table (7) below, the test of significance of regression coefficient, which its T-test equal to almost 10.121, with a significance level of 0.000. This value is smaller than the level of significance of 5%, which confirms the existence of significant influence "statistically significant" of the quality of information (independent

variable) on the level of details related to the environmental accounting disclosure (dependent variable)

Table (7): Test regression coefficients and correlation results

Variable	T-Value	R	R Square	Durbin-Watson	Sig.
Level of Details	10.121	.043	.222	1.798	* 0.000

Furthermore, the above table indicates that the sign of the regression coefficient shown in the model is positive ((+).043). This affirms that the impact of quality of information on the level of details related to the environmental accounting disclosure is Positive. This means that any attention is given to quality of information values will increase the values of the level of details related to the environmental accounting disclosure.

The value of R Square is recorded as ( $R^2 = 22.2\%$ ). This indicates that any change occurs in the independent variable (quality of information) is responsible for the interpretations of about 22.2% of the change in the dependent variable (the level of details related to the environmental accounting disclosure).

Furthermore, in order to test the presence of autocorrelation problem for the residuals resulting from the regression equation (Autocorrelation). It was found that the value of Durbin-Watson is equal to 1.798. Looking at the tabulated values, it can be found that this value lies between (Du, 2). This shows that there is no problem of autocorrelation of residuals resulting from the regression equation. Therefore, we accept the hypothesis, which states that: *There is a significant impact (statistically significant) for the quality of information on the level of details related to environmental accounting disclosure*

### 3.4.2 Sub-Hypothesis 2:

*“There is a significant impact (statistically significant) for the quality of information on the types of information related to environmental accounting disclosure”.*

For testing this hypothesis, the researchers used the simple linear regression in order to know the impact of quality of information (independent variable) on the types of information related to the environmental accounting disclosure (dependent variable).

As it can be seen from the data presented in table (8) below, the test of significance of regression coefficient, which its T-test equal to almost 11.123, with a significance level of 0.000. This value is smaller than the level of significance of 5%, which confirms the existence of significant influence "statistically significant" of the quality of information (independent variable) on the types of information related to the environmental accounting disclosure (dependent variable).

Table (8): Test regression coefficients and correlation results

Variable	T-Value	R	R Square	Durbin-Watson	Sig.
Types of Information	11.123	.617	.380	1.388	* 0.000

Furthermore, the above table indicates that the sign of the regression coefficient shown in the model is positive ((+).617). This affirms that the impact of quality of information on the types of information related to the environmental accounting disclosure is Positive. This means that any attention is given to quality of information values will increase the values of the types of information related to the environmental accounting disclosure.

The value of R Square is recorded as ( $R^2 = 38\%$ ). This indicates that any change occurs in the independent variable (quality of information) is responsible for the interpretations of about 38% of the change in the dependent variable (the types of information related to the environmental accounting disclosure).

Furthermore, in order to test the presence of autocorrelation problem for the residuals resulting from the regression equation (Autocorrelation). It was found that the value of Durbin-Watson is equal to 1.798. Looking at the tabulated values, it can be found that this value lies between (Du, 2). This shows that there is no problem of autocorrelation of residuals resulting from the regression equation. Therefore, we accept the hypothesis, which states that: *There is a significant impact (statistically significant) for the quality of information on the types of information related to environmental accounting disclosure*

### 3.4.3 Sub-Hypothesis 3:

*“There is a significant impact (statistically significant) for the quality of information on the nature of information related to environmental accounting disclosure”.*

For testing this hypothesis, the researchers used the simple linear regression in order to know the impact of quality of information (independent variable) on the nature of information related to the environmental accounting disclosure (dependent variable).

As it can be seen from the data presented in table (9) below, the test of significance of regression coefficient, which its T-test equal to almost 12.026, with a significance level of 0.000. This value is smaller than the level of significance of 5%, which confirms the existence of significant influence "statistically significant" of the quality of information (independent variable) on the nature of information related to environmental accounting disclosure (dependent variable).

Table (9): Test regression coefficients and correlation results

Variable	T-Value	R	R Square	Durbin-Watson	Sig.
Nature of Information	12.026	.482	.233	1.509	* 0.000

Furthermore, the above table indicates that the sign of the regression coefficient shown in the model is positive ((+).482). This affirms that the impact of quality of information on the nature of information related to environmental accounting disclosure (is Positive. This means that any attention is given to quality of information values will increase the values of the nature of information related to the environmental accounting disclosure.

The value of R Square is recorded as ( $R^2 = 23.3\%$ ). This indicates that any change occurs in the independent variable (quality of information) is responsible for the interpretations of about 23.3% of the change in the dependent variable (the nature of information related to the environmental accounting disclosure).

Furthermore, in order to test the presence of autocorrelation problem for the residuals resulting from the regression equation (Autocorrelation). It was found that the value of Durbin-Watson is equal to 1.509. Looking at the tabulated values, it can be found that this value lies between (Du, 2). This shows that there is no problem of autocorrelation of residuals resulting from the regression equation. Therefore, we accept the hypothesis, which states that: ***There is a significant impact (statistically significant) for the quality of information on the nature of information related to environmental accounting disclosure***

#### 4. Results:

A number of results were reached, the most important of which were:

1. There is a significant impact (statistically significant) for the quality of information on the level of details related to environmental accounting disclosure.
2. There is a significant impact (statistically significant) for the quality of information on the types of information related to environmental accounting disclosure.
3. There is a significant impact (statistically significant) for the quality of information on the nature of information related to environmental accounting disclosure.
4. The study found that the Arabian Gulf Oil Company did not consider the importance of the diversity of both pure narrative approach and numerical approach of the information.
5. The study discovered that the information in the Arabian Gulf Oil Company was not sufficiently up-to-date for the needed work.
6. The study revealed that the issue of information quality was not increasingly visible and important in the Arabian Gulf Oil Company.

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